Observational Study to Measure the Compliance of Labor Rooms to the LaQshay Guideline in the 6 District Hospitals of Punjab

By

Ruchika

Dissertation submitted in partial fulfillment of the requirements of the degree

MBA Hospital and Health Management

Academic year, 2017-2019

The IIHMR University, Jaipur

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IIHMR UNIVERSITY

TO WHOMSOEVER MAY CONCERN

This is to certify that **Dr. Ruchika**, student of MBA Health Management from The IIHMR University, Jaipur has undergone internship training at **NHM Punjab**, from **4th February to 3rd May 2019.**

The Candidate has successfully carried out the study on **An Observation study to Measure the Compliance of Labor Rooms to the LaQshay Guidelines in Six District Hospitals of Punjab** assigned to her during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.

Col. (Dr.) Ashok Kaushik
Dean, Academics and Student Affairs
The IIHMR University, Jaipur

15 May 19.

Dr. Seema Mehta
Associate Professor
The IIHMR University, Jaipur

DIRECTORATE OF HEALTH & FAMILY WELFARE, PUNJAB
Parivar Kalyan Bhawan, Sector 34, Chandigarh
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Memo No. MCH/Pb/18/ Dated: 05-05-2019

Certificate of completion of Dissertation

The certificate is awarded to

Dr. Ruchika

In recognition of having successfully completed her dissertation in the department of

Maternal and Child Health

and has successfully completed her Project on

An Observational Study to Assess the Labor rooms of district hospitals in the state of Punjab under LaQshay Initiative.

Date- 4th February to 3rd May 2019

Organization – National Health Mission, Punjab
Directorate of Health and Family Welfare, Punjab
Sector 34, Chandigarh.

She comes across as a committed, sincere & diligent person who has a strong drive and zeal for learning.
I wish her all the best for future endeavors

Dr. Inderdeep Kaur
Program Officer (Maternal Health)
O/o Director Health Services, Punjab

PO MCH
Director Health Services, Punjab

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation **titled "An Observational Study to Assess the Labor rooms of district hospitals in the state of Punjab under the LaQshay Initiative,"** submitted by **Dr. Ruchika**, Enrollment No. **IIHMR-U/01/2017-19/0653** under the supervision of **Dr. Seema Mehta** for award of MBA in Hospital and Health Management in The IIHMR University carried out during the period from 4th February 2019 to 3rd May 2019 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other institute or other similar institution of higher learning.

Signature

ABSTRACT

TITLE: An Observational Study to Measure the Compliance of Labor rooms to the LaQshay guidelines in the 6 District Hospitals of Punjab

NAME OF AUTHOR: Dr. Ruchika

BACKGROUND: After the launch of National Health Mission, there has been substantial increase in the number of institutional deliveries, but it has still not resulted in reduction of maternal mortality ratio in the country. It is estimated that approximately 46% maternal deaths, over 40% stillbirths and 40% newborn deaths take place on the day of the delivery. According to NFHS 4, in Punjab 89% of deliveries take place in the health facilities. Despite of such high percentage, Punjab faces the issue of high Maternal Mortality Ratio (122/100,000 live births).This study aims to ensure that the district hospitals in Punjab follow the guidelines and strengthen the labour rooms to reduce the overall maternal mortality ratio and infant mortality rate.

OBJECTIVES:

1. To assess the infrastructure of the labor rooms of district hospitals of Punjab as per the LaQshay guidelines.
2. To assess the human resource of the labor rooms of district hospitals of Punjab as per the LaQshay guidelines.
3. To check the availability of essential equipment and drugs supply in the labor rooms of district hospitals of Punjab as per the LaQshay guidelines.
4. To see whether the facility has established quality assurance programmes critical to the quality of care being provided as per the LaQshay guidelines.

MATERIAL AND METHODS:

- **Study design**: Descriptive Cross-sectional Study
- **Study area:** Labor rooms of district hospitals of Punjab.
- **Study tools**: Pre-designed Checklist, personal interview
- **Duration of study**: 3 months

- **Sampling Technique**: Purposive Sampling
- **Sample size**: 6 District Hospitals
    - Limitation: due to time constraint of internship project of 3 months; the complete enumeration of 22 district hospitals, as planned, could not be completed and only 6 district hospitals could be included. The internship report contains a descriptive analysis of labour rooms of 6 district hospitals of Punjab.
- **Target population:** Labor room health personnel (doctors, staff-nurses)

- **Data collection procedure**: Data collection was done by observing and interviewing the available doctor, staff-nurses of labor rooms.
- **RESULTS**: it was found that out of 6 district hospitals, DH Faridkot and Nawashahr had the lowest compliance rate of 54% and 57% respectively with respect to the infrastructure. DH Nawashahr had the lowest compliance rate of 40% showing the insufficient human resource as per the delivery load in the labour rooms. Almost every facility had the full stock of essential drugs and equipment as per the requirement. Out of 6 district hospitals, 3 DH (Amritsar, Barnala, Mohali) did not have the set quality assurance programmes for the services where quality is critical and had the compliance rate of 50%, 25%, 25% respectively.

  CONCLUSION: It is evident from the study that most of the labour rooms were lacking in trained medical personnel and quality assurance programmes. There was lack of proper infrastructure for delivery of assured services in the labour rooms. If all the parameters under LaQshay program are implemented in all the district hospitals, the standard of labour rooms in government facilities will be at par with the labour rooms in private hospitals.

  (*Key words- Labour room, quality assurance programme, maternal and neonatal mortality*)

ACKNOWLEDGEMENT

"Vital to every operation is cooperation"–

A wonderful quotation put forth by Mr. Frank Tyger.

The opportunity I had with National Health Mission, Punjab was an enriching experience, it was a great chance for learning and professional development. It helped me develop an ability to understand healthcare issues from various perspectives.

Bearing in mind the previous, I would like to take this opportunity to express my deepest gratitude and special thanks to my mentor, Dr. Seema Mehta, Associate Professor, IIHMR University, Jaipur, for guiding and keeping me on the correct path throughout the period of internship.

It is my radiant sentiment to place on record my best regards, deepest sense of gratitude and indebtedness to Dr. Avneet Kaur, Director Health and Family Welfare, Punjab for allowing me to carry out the study with ease at her esteemed organisation during the internship.

I would like to gratefully acknowledge Dr. Inderdeep Kaur, Program Officer (Maternal Health) at Directorate Health and Family Welfare, Punjab for her immense support, faith and cooperation has moved me many levels beyond our own thinking.

Furthermore, I would like to express my deepest thanks to the whole Maternal Health Team, for providing me with all the required information that helped me with my study.

I perceive the opportunity as a big milestone in my professional development. I will strive to use the gained skills and acknowledgement on the best possible way, and will continue to work on their improvement, to attain the desired career objectives.

Sincerely,

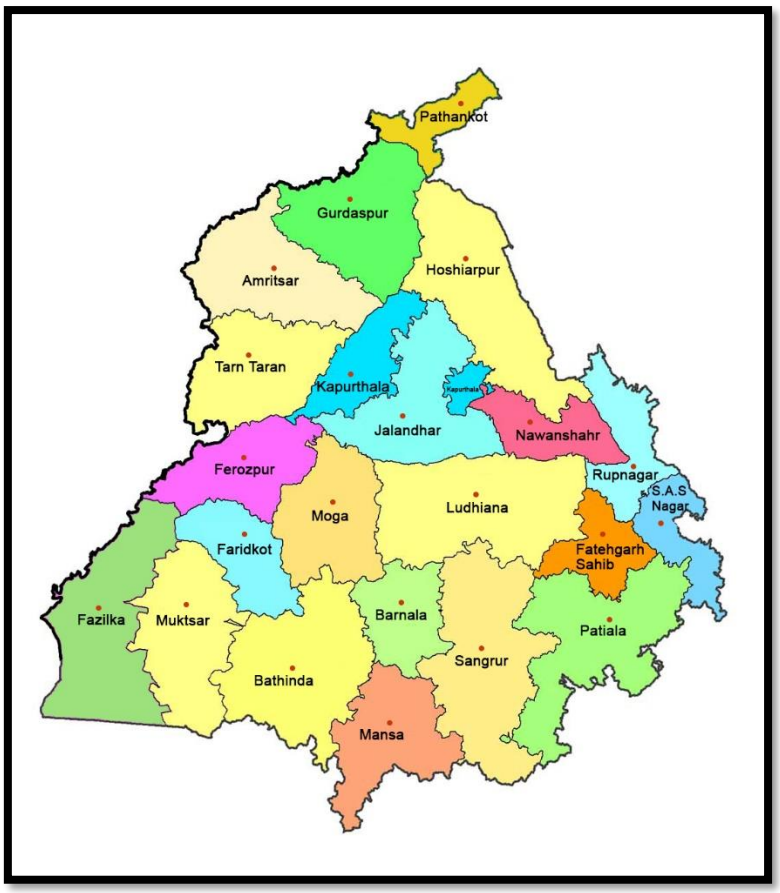
Dr. Ruchika

Contents

LIST OF ABBREVIATIONS

MOHFW	Ministry of Health and Family Welfare
GOI	Government of India
DH	District Hospital
SI	Staff Interview
RR	Record Review
PI	Patient Interview
OB	Observation
NHM	National Health Mission
PDCA	Plan- Do-Check –Act
RMNCHA	Reproductive Maternal Newborn Child and Adolescent Health
PHSC	Punjab Health Systems Corporation
NHSRC	National Health Systems Resource Centre
OBG/Obs. & Gynae.	Obstetrics & Gynaecology
OSCE	Objective Structured Clinical Examination
PPH	Post-partum Heamorrhage
RMC	Respectful maternity care
PHC	Primary Health Center
SNCU	Special Newborn Care unit

PUNJAB



1. INTRODUCTION

India has been taking several initiatives for addressing the problem of high maternal mortality ratio. However, there has been suboptimal improvements in the trends of neonatal and infant mortality rates. After the launch of National Health Mission, there has been substantial increase in the number of institutional deliveries, but it has still not resulted in reduction of maternal mortality ratio in the country. However, this increase in the numbers has not improved the key maternal and new-born health indicators. This points out to the need for improving the quality of services and care provided in the labour rooms(1).

A change in the procedures related to the care provided during delivery, which includes both intra-partum and post-partum care, is essential for improving the maternal new-born health indicators. This approach should focus on health system's preparedness for immediate identification and management of obstetric complications(1).

Such an approach will not only require availability of adequate infrastructure functional & calibrated equipment, drugs & supplies & HR, but also meticulous adherence to clinical protocols by the service providers at the health facilities.

BACKGROUND OF THE PROJECT

In the month of March 2018, Government of India launched LaQshay- Labour Room Quality Improvement Initiative to implement safe and respectful childbirth practices nation-wide with the objective of reducing maternal and newborn mortality and morbidity and enhancing the satisfaction of women availing of healthcare(2).

GOAL: Reduce preventable maternal and newborn mortality, morbidity and stillbirths associated with the care around delivery in Labour room and Maternity OT and ensure respectful maternity care.

OBJECTIVES:

1. To reduce maternal and newborn mortality & morbidity due to APH, PPH, retained placenta, preterm, preeclampsia & eclampsia, obstructed labour, puerperal sepsis, newborn asphyxia, and sepsis, etc.
2. To improve Quality of care during the delivery and immediate post-partum care, stabilization of complications and ensure timely referrals, and enable an effective two-way follow-up system.
3. To enhance satisfaction of beneficiaries visiting the health facilities and provide Respectful Maternity Care (RMC) to all pregnant women attending the public health facility(1).

STAGES FOR LAQSHAY ASSESSMENT

There are 4 steps for LaQshay Assessment:

1. **Primary Internal Assessment**
   - Hospital staff do the scoring.
   - Gaps are identified.
   - Gaps are rectified.
2. **Final Internal Assessment**
   - Same hospital team does the final assessment.

3. **Peer Assessment**
    - Teams from other districts visit the facility and assessment of the facility is done by the team.
4. **External Assessment**
    - The facility scoring 70% in the peer assessment qualify for the external assessment.
    - External assessment is done by the team sent by the State.

AWARD SCHEME

Platinum Badge	Gold Badge	Silver Badge
• For scoring 90% and above.	• Scores greater than 80%	• Achieving scores above 70%

CRITERIA FOR LAQSHAY CERTIFICATION

Criterion I- Overall Score > 70%

Criterion II- Score in Each Area of Concern > 70%

Criterion III- Individual Score of 3 core Standards (B3, E18 and E19) * ≥ 70%

Criterion IV- Score in each Applicable Quality Standard >50%

Criterion V- Client Satisfaction > 80%

***Core-Standards**

Standard B 3 - "The facility maintains privacy, confidentiality & dignity of patient, and has a system for guarding patient related information."

Standard E 18 - "The facility has established procedures for Intranatal care as per guidelines."

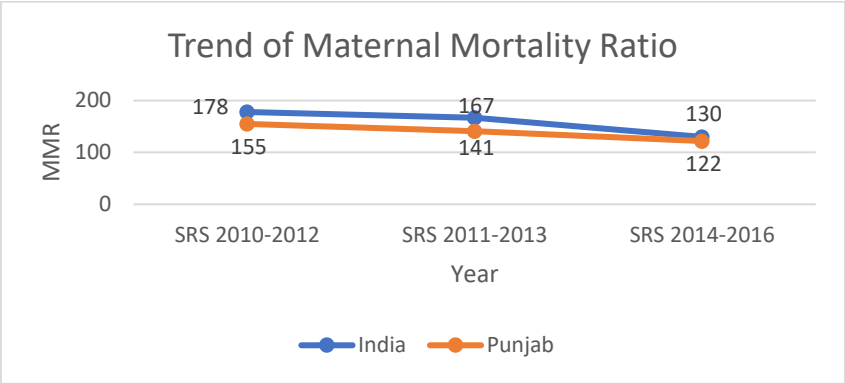
Standard E 19 - "The facility has established procedures for Post-natal care as per guidelines."

Scoring method:

- 100% Compliance= 2

- 50-90% Compliance= 1
- Less than 50% Compliance= 0

2. RATIONALE OF THE STUDY



- A rise in institutional deliveries has been achieved through increased availability of health-care facilities, services, and financial incentives under Janani Suraksha Yojana and Janani Shishu Suraksha Karyakram. Despite the rapid improvement in skilled birth attendance and facility births, progress in achieving desired outcomes and impact remained slow(3).
- Evidence shows that the highest number of maternal and newborn deaths occur during delivery and immediately after that.
- On comparing the MMR of Punjab (122/100,000 live births) with MMR of India (130/100,000 live births), it can be seen that there is a very minute difference(4).
- According to NFHS 4, in Punjab 90.5% of deliveries take place in the health facilities. Despite of such high percentage, Punjab faces the issue of high Maternal Mortality Ratio(5).
- It is estimated that approximately 46% maternal deaths, over 40% stillbirths and 40% newborn deaths take place on the day of the delivery(1).
- In India, four maternal complications (hemorrhage, sepsis and obstructed/prolonged labor, hypertensive disorders) and three newborn complications (prematurity and low birth weight, sepsis, and intrapartum causes, mostly birth asphyxia) contribute approximately 60% and 70% mortality, respectively(2).

- This study aims to ensure that the district hospitals in Punjab follow the guidelines and strengthen the labour rooms to reduce the overall maternal mortality ratio and infant mortality rate.

3. REVIEW OF LITERATURE

AUTHOR	STUDY TITLE	STUDY AREA	YEAR	SAMPLE SIZE	KEY FINDING
Jyoti Sharma, Sutapa B. Neogi, Preeti Negandhi, Monika Chauhan, Siddharth Reddy, Ghanshyam Sethy	Rollout of Quality Assurance Interventions in Labor Room in Two Districts of Bihar, India	Gaya, Purnea districts of Bihar	2014-2016	24 Health Facilities	During post assessment it was found that there was definite improvement in the scores of quality assurance in most of the facilities. There was a rise of 20 points in the infection control scores of the facilities in Gaya district whereas the scores for infection control in Purnea district increased by 10 points. Major improvement was seen in the scores of quality management (from 6.2 to 58.2)(3).
Emmanuel K. Srofenyoh Nicholas J. Kassebaum David M. Goodman Adeyemi J.	Measuring the impact of a quality improvement collaboration to decrease maternal	Ridge Regional Hospital, Accra, Ghana,	2007-2011	1 Facility	The intervention helped in preventing 43 maternal deaths and even greater number of deaths was averted. Mortality reduction was correlated with 26 continuous quality

Olufolabi Medge D. Owen	mortality in a Ghanaian regional hospital				improvement activities(6).
Andrea Solnes Miltenburg, Richard Forget Kiritta, Tarek Meguid and Johanne Sundby	Quality of care during childbirth in Tanzania: identification of areas that need improvement	Lake Zone in Tanzania	2014-2016	4 rural and semi-urban health facilities.	It was found that the facility requires infrastructure for women to move between different rooms during active childbirth. Partographs were often not filled in immediately after admission, even though women where in active phase of labour(7).
Ephrem D. Sheferaw, et al.	Respectful maternity care in Ethiopian public health facilities	Ethiopia	2016	28 health centres and hospitals	Health centers showed higher RMC performance than hospitals. At least one form of mistreatment of women was committed in 36% of the observations (38% in health centers and 32% in hospitals)(8).
Arunabh Ray	Assessment of Labour Rooms in Public Health Facilities of Bihar, India.	Bihar	2013	Public Health facilities of Bihar	It was found that more than half of the labour rooms in the public health facilities did ot have adequate infrastructure to ensure safe delivery, sanitation and hygiene maintenance. 77% of the

					labour rooms did not have invertors installed in the facilities. The assessment shows that roughly 72 % of deliveries in Bihar are conducted without the use of Partograph. The study showed that the public health facilities in the state of Bihar lacked in Infection control measures. Many gaps were found in the availability of essential drugs, consumables, equipment and instruments(9).
Malvika Saxena, Aradhana Srivastava, Pravesh Dwivedi, Sanghita Bhattacharyya	Is quality of care during childbirth consistent from admission to discharge? A qualitative study of delivery care in Uttar Pradesh, India	Uttar Pradesh	2018	Nine public health facilities were selected in two rural districts of Uttar Pradesh (UP)	Gaps were observed in the process of care, particularly during delivery and post-delivery stages. Key areas of concern included compromised patient safety like poor hand hygiene, usage of unsterilized instruments; inadequate clinical care like lack of routine monitoring of labour progression, inadequate

					postpartum care(10)
Kirti Iyengar, Motilal Jain, Sunil Thomas, Kalpana Dashora, William Liu, Paramsukh Saini, Rajesh Dattatreya, Indrani Parker and Sharad Iyengar	Adherence to evidence-based care practices for childbirth before and after a quality improvement intervention in health facilities of Rajasthan, India	Rajasthan	2014	44 high caseload public health facilities of 10 districts of Rajasthan	The findings of the study revealed that after intervention use of several unnecessary activities reduced significantly. Proportion of facilities using routine augmentation of labour reduced, episiotomy for primigravidas, fundal pressure, and routine suction of newborns. Some practices did not show any improvements, such as dorsal position for delivery, use of partograph, and handwashing(11)
Sanghita Bhattacharyya, Anns Issac, Preety Rajbangshi, Aradhana Srivastava and Bilal I. Avan	"Neither we are satisfied nor they"- users and provider's perspective: a qualitative study of maternity care in secondary level public	Uttar Pradesh	2015	16 healthcare providers and 24 women who have recently delivered	The common challenges experienced regarding provision of care were inadequate physical infrastructure, irregular supply of water, electricity, shortage of medicines, supplies, and gynaecologist and anaesthetist to manage complications, difficulty in maintaining privacy and

	health facilities, Uttar Pradesh, India.				lack of skill for post-delivery counselling(12).

4. RESEARCH QUESTIONS

- What is the compliance of labour rooms to the LaQshay guidelines, in the 6 district hospitals of Punjab?

5. OBJECTIVES OF RESEARCH

General Objective: To assess whether the labour rooms of 6 district hospitals in Punjab are following the guidelines under the LaQshay Program.

Specific Objectives

1. To assess the infrastructure of the labor rooms of district hospitals of Punjab as per LaQshay Guidelines.
2. To assess the human resource of the labor rooms of district hospitals of Punjab as per LaQshay Guidelines.
3. To check the availability of essential equipment and drugs supply in the labor rooms of district hospitals of Punjab as per LaQshay Guidelines.
4. To see whether the facility has established quality assurance programmes as per LaQshay Guidelines.

6. RESEARCH METHODOLOGY

6.1 Research Design: Descriptive Cross-sectional Study

6.2 Study Area: Labor rooms of district hospitals (6) of Punjab

6.3 Duration of the study: 3 months (4th February 2019-3rd May 2019)

6.4 Type of Data collection: **Primary data collection**: - primary data was collected through checklist

6.5 Sampling Technique: Purposive Sampling

6.6 Sample size: 6 District Hospitals

- Limitation: due to time constraint of internship project of 3 months; the complete enumeration of 22 district hospitals, as planned, could not be completed and only 6 district hospitals could be included. The internship report contains a descriptive analysis of labour rooms of 6 district hospitals of Punjab.

6.7 Target Population: Labor room health personnel (DOCTORS, STAFF-NURSES)

6.8 Method of data collection: Data was collected by observing and interviewing the available health personnel (Doctor, Staff Nurses) in labour rooms of district hospitals through pre- designed checklist.

6.9 Data Analysis Procedure: The data was compiled and analyzed in Microsoft excel.

7. ANALYSIS

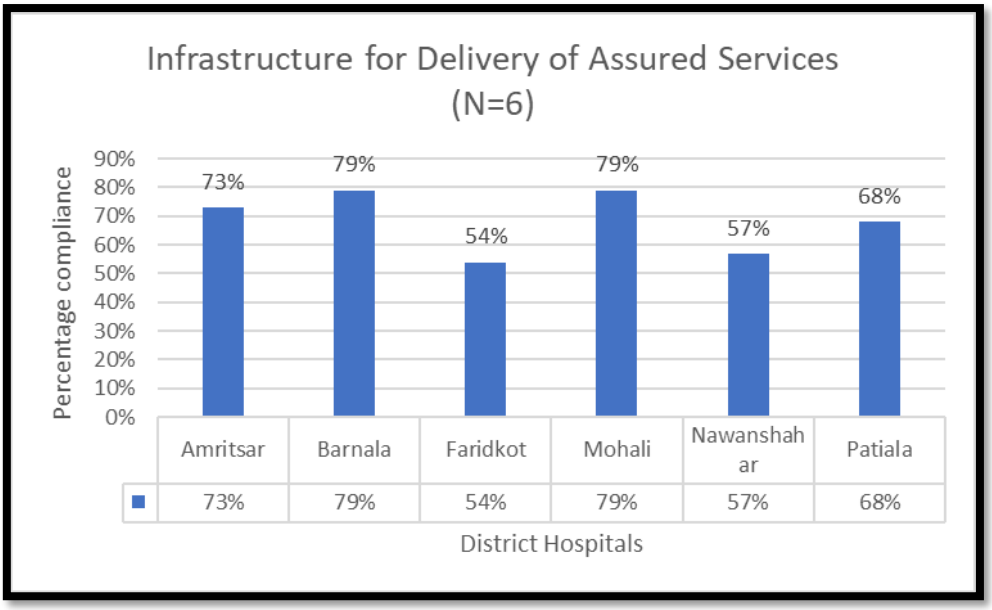


Figure 1: Compliance of Labour Rooms to the infrastructure as per LaQshay Guidelines

Interpretation: Figure 1 depicts the compliance for infrastructure of Labour rooms in District hospitals. It is evident that Mohali DH and Barnala DH have the highest compliance of 79% each and district hospital Amritsar has the second highest compliance rate of 73% . District hospitals of Faridkot and Nawashahr have the lowest compliance rate of 54% and 57% respectively.

According to the LaQshay Guidelines, the labour rooms should be designed in the LDR concept. Labur room should be in close proximity with the maternity OT and SNCU. The doors should be broad enough to allow easy passage. There should be a dedicated nursing room, changing room, doctors' duty room for the labour room. The labour room should have clean drinking water dispenser and a hand washing area.

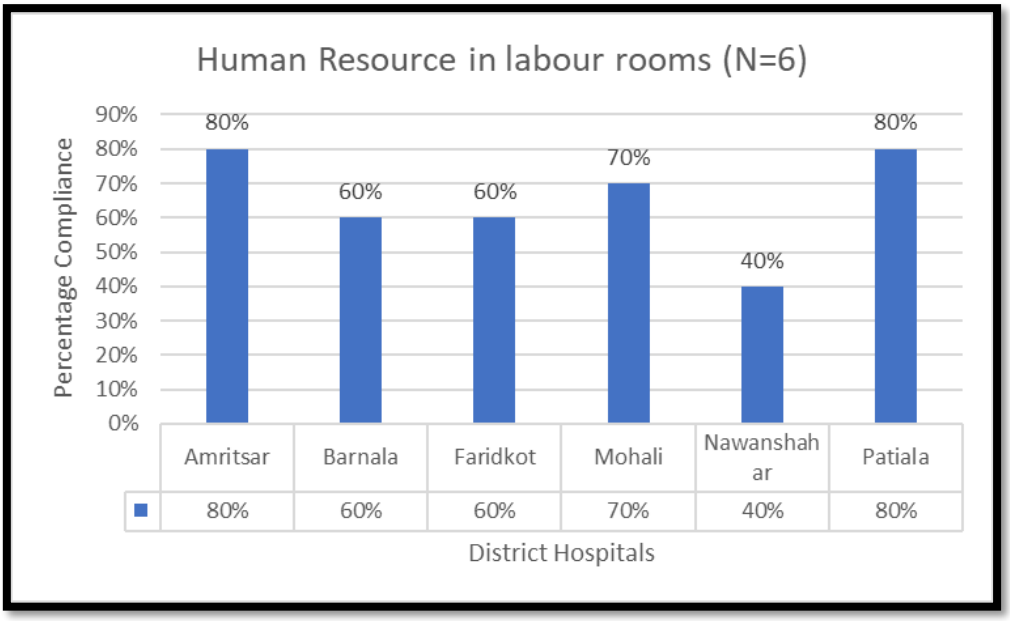


Figure 2: Compliance of Labour Rooms to the Human Resource requirement as per LaQshay Guidelines.

Interpretation: Figure 2 presents the scores of human resource available in the labour rooms of district hospitals. It was seen that DH Amritsar, DH Patiala have the highest compliance i.e. 80% which means that adeqaute number of staff is present as per the delivery load in the labour rooms. DH mohali secured the second position by scoring 70% which suggests that the facility had enough personnel to manage the patient load whereas DH Barnala and DH Faridkot lacked in the required number of health personnel and had the compliance of 60% each. DH Nawashahr had the lowest compliance of 40% showing the insufficient human resource as per the delivery load in the labour rooms.

According to LaQshay guidelines, if the delivery load is between 100-200 there should be either a gynecologist or EMOC and 8 staff nurses. If the delivery load is between 200-500, gynecologist along with 4 medical officers and 12 staff nurses should be present in the labour room. There should be atleast one pediatrician in the labour room. In most of the district hospitals, the delivery load was more than 200, which was handled only by gynecologist along with staff nurses. Very few district hospitals had the EMOC or the medical officers deployed in the laboour room. There was shortage of staff nurses, housekeeping staff and security guards in the every district hospital.

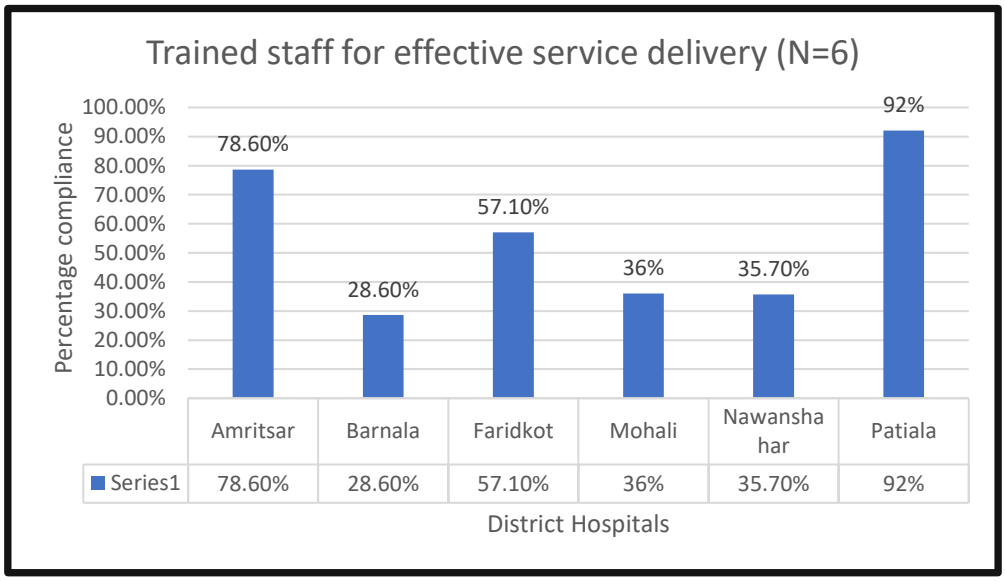


Figure 3: Compliance of Labour Room staff to the Trainings required as per LaQshay Guidelines

Interpretation: From figure 3 it can be observed that DH Patiala had the maximum compliance of 92% and DH Amritsar is on second position with approximately 79% compliance to the trainings required as per LaQshay Guidelines. Maximum number of health providers were not trained in the DH Mohali, DH Nawashahr and DH Barnala therefore, these DHs have the lowest compliance rate.

According to LaQshay guidelines, the staff of abour room should have attended the mandatory trainings on DAKSHATA, NSSK, NBSK, OSCE, RMC, Biomedical waste management, etc. DH Barnala, Mohali and Nawanshahr had the least compliance with respect to the trainings on OSCE, NSSK and biomedical waste management.

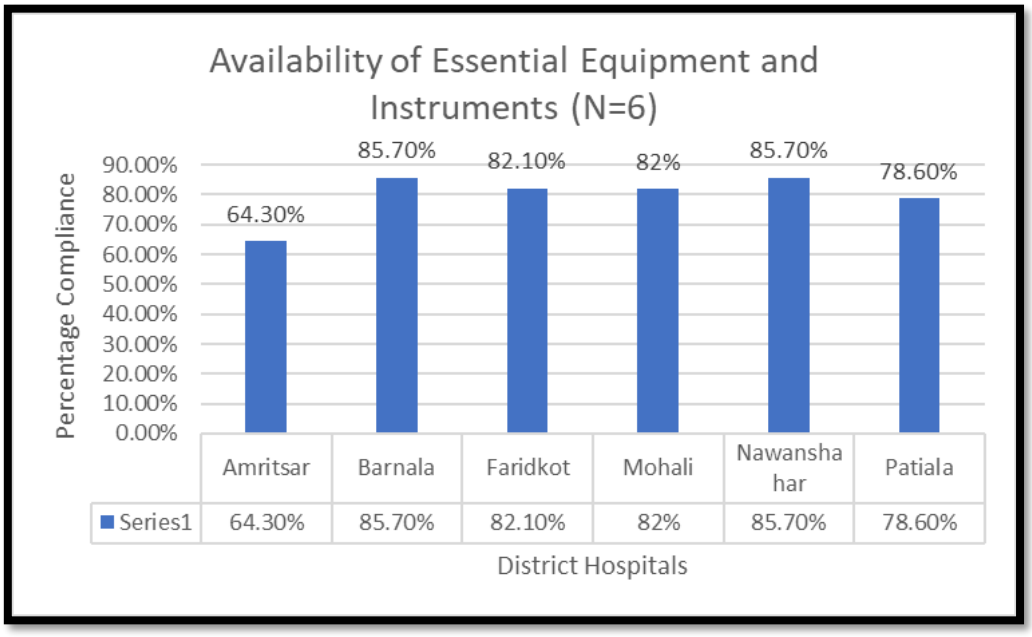


Figure 4:Compliance of Labour rooms to the availability of essential equipments and instruments as per LaQshay Guidelines.

Interpretation: In figure 4, the graph shows the scores for availability of essential equipment and instruments in labour rooms of DH. District Hospital Barnala and DH Nawashahar has secured the top position with the compliance of 86% which means that these facilities have all the essential equipment and instruments as per the requirement whereas DH Amritsar and DH Patiala lacked in some equipment and instruments as per the delivery load. DH Amritsar had the lowest compliance of 64%.

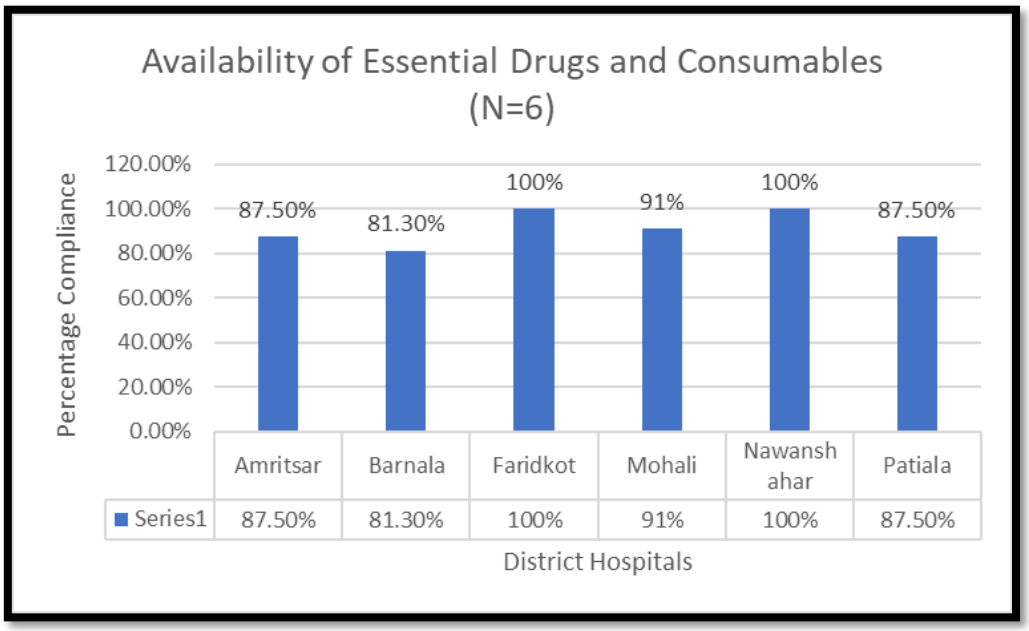


Figure 5: Compliance of Labour Rooms to the availability of essential drugs and consumables as per LaQshay Guidelines

Interpretation: Figure 5 depicts the compliance to LaQshay guidelines for availability of essential drugs and consumables in the labour rooms of the district hospitals. It was seen that

almost every facility had full stock of drugs and consumables in the drug store of labour rooms. DH Faridkot and DH Nawanshahr had the 100 % compliance.

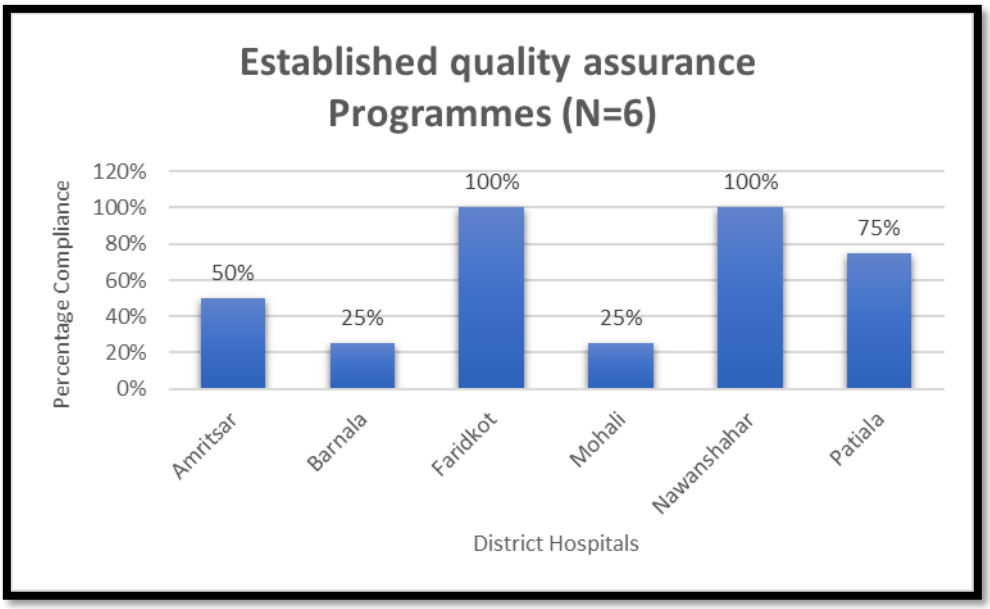


Figure 6: Compliance of Labour Rooms to the Established Quality Assurance Programmes as per LaQshay Guidelines

Interpretation: Figure 6 shows the compliance for quality assurance programmes in the labour rooms. It can be noted that out of 6 district hospitals, 3 DH (Amritsar, Barnala, Mohali) did not have the set quality assurance programmes for the services where quality is critical. DH Faridkot and Nawanshahr had the100% compliance for establishing the quality assurance programs in the facilities.

ANALYSIS OF SAMPLE DISTRICT BARNALA BASED ON LAQSHAY CHECKLIST

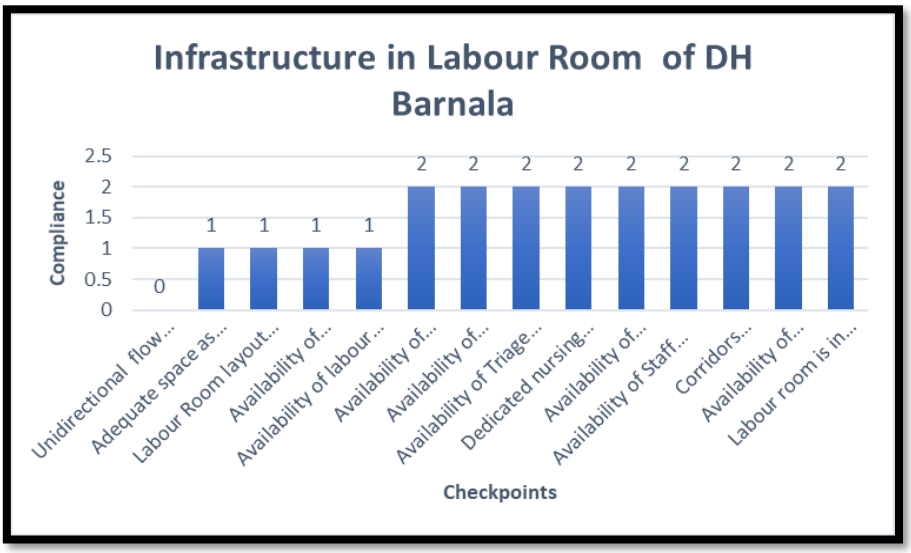


Figure 7: Compliance of labour room of Barnal DH with respect to infrastructure

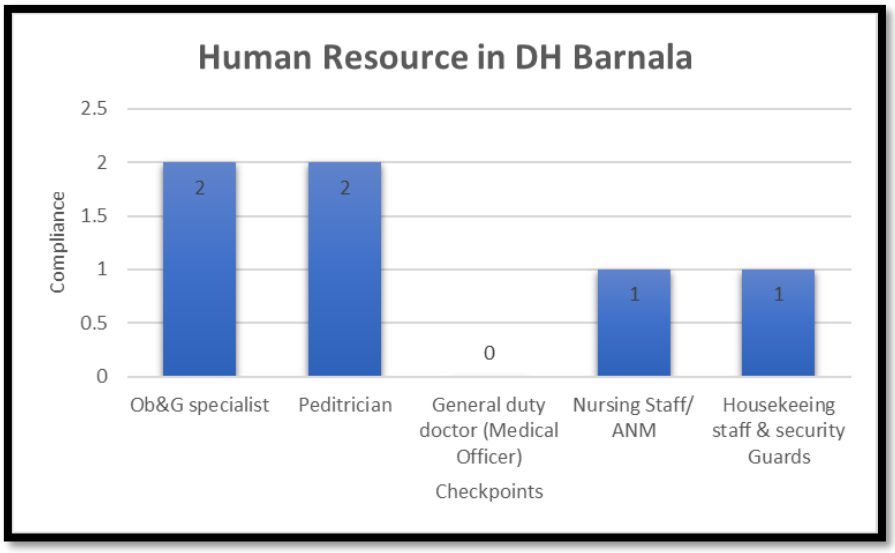


Figure 8: Compliance of Labour Room of Barnala DH with respect to Human Resource.

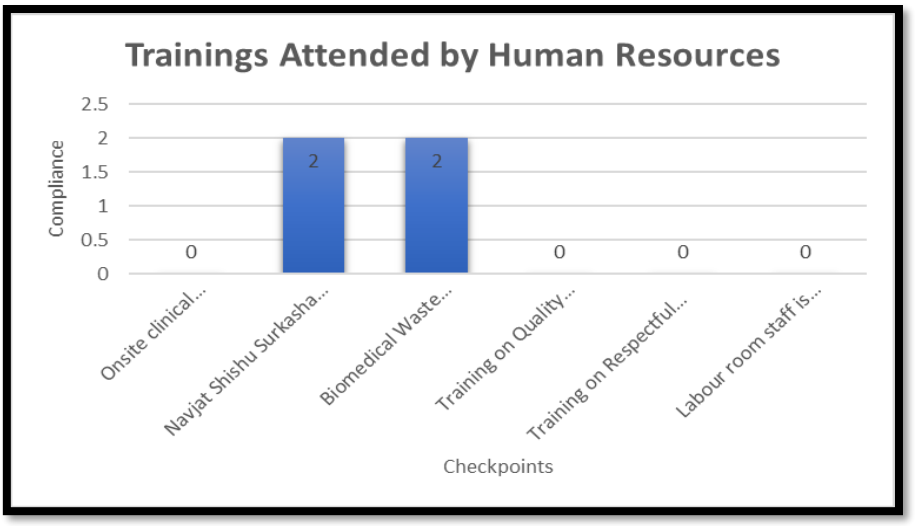


Figure 9: Compliance of Labour Room of Barnala DH with respect to Trainings attended by the Staff

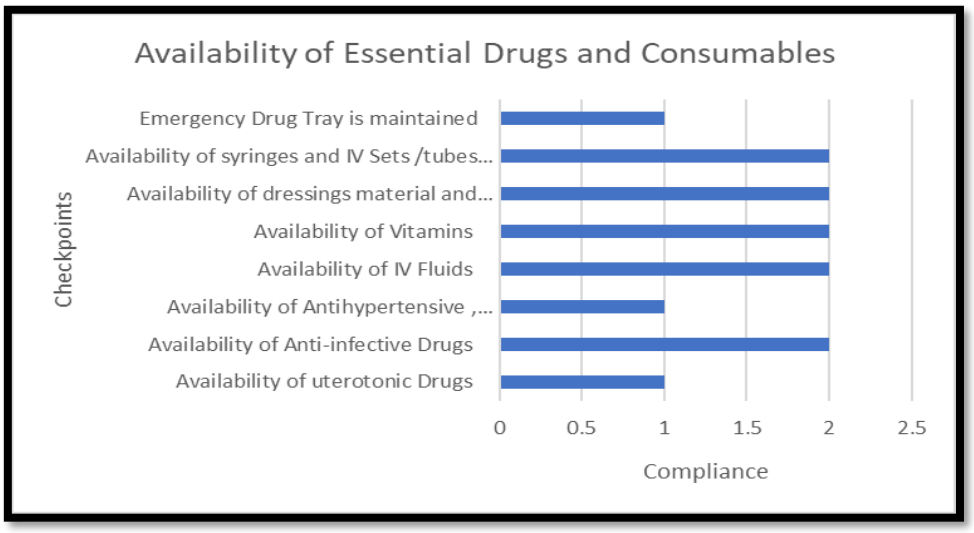


Figure 10: Compliance of Labour room of Barnala DH with respect to Availability of Essential Drugs and Consumables

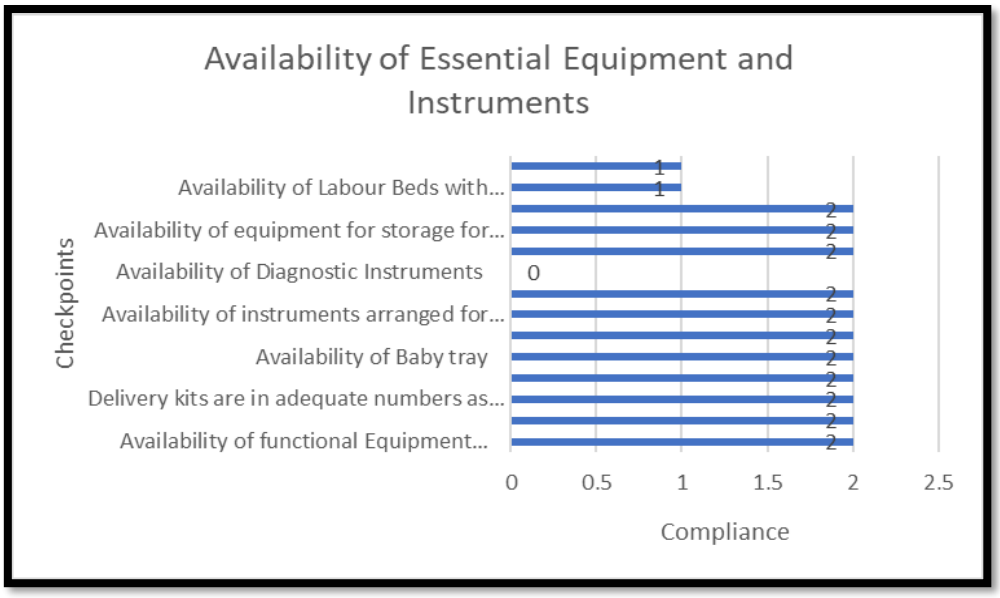


Figure 11: Compliance of Labour Room of DH Barnala with respect to availability of Essential Equipment and Instruments

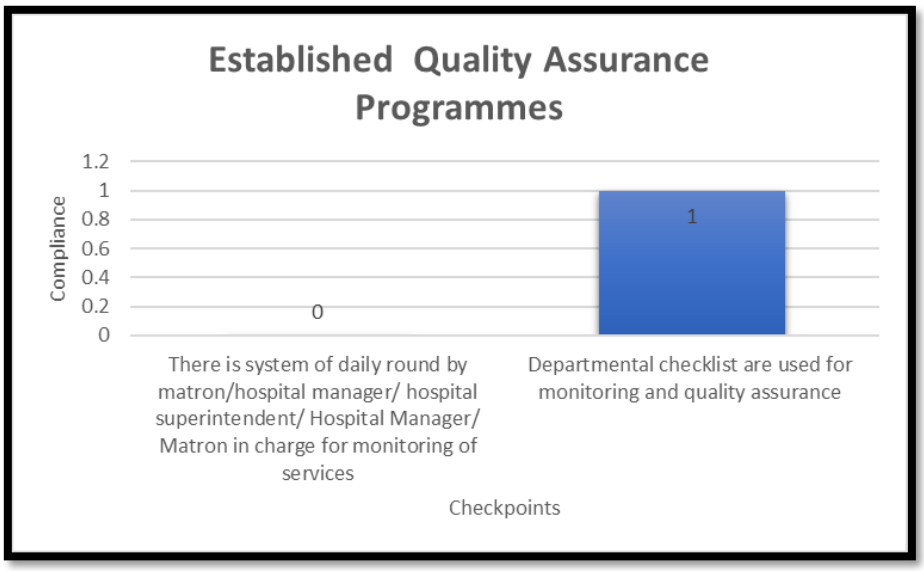


Figure 12: Compliance of Labour Room of DH Barnala with respect to the Established Quality Assurance Programmes

8. DISCUSSION

The Maternal Health division in the Office of Directorate Health and Family Welfare was working on the Quality Improvement Initiative in Labour rooms under LaQshay Program. Dr. Inderdeep Kaur, (Program Officer) was working on the implementation of LaQshay Program in District Hospitals of Punjab.

The Maternal Health Division had identified 22 District Hospitals and 3 Government Medical Colleges and Hospitals for the implementation of LaQshay Program.

During the assessment of labour rooms, it was observed that the Labour rooms in district hospitals did not have proper infrastructure. Majority of the district hospitals did not have unidirectional flow of patients in maternal and child healthy wings of the facilities.

Many facilities did not have a separate registration area, waiting area for labour rooms. The labour rooms were not connected with the doctor's duty rooms, maternity OT and SNCU.

The facilities did not have enough space in the labour rooms for effective triage and examination of the patients.

Under the LaQshay Program, labour rooms should have LDR (Labour Delivery Recovery) concept but none of the 6 district hospitals had LDR concept due to space constraints.

In most of the district hospitals the labour rooms did not have attached washrooms which is mandatory under the LaQshay program.

None of the 6 district hospitals had enough human resource required specifically for the labour rooms.

The staff nurses and doctors posted in the labour rooms did not attend the OSCE training and other necessary skill lab trainings which are mandatory under the LaQshay Program.

The labour beds in the labour rooms were old and rusted with blood stained mattresses which is strictly not acceptable under LaQshay initiative.

Very few facilities had set SOPs for the quality assurance programs critical for improving the quality of care provided in the labour rooms.

9. CONCLUSION

It is clear from the study that most of the labour rooms were not following the LaQshay guidelines as there was lack of trained medical personnel that was required to be in the labour rooms. There was lack of proper infrastructure for delivery of assured services in the labour rooms. Majority of the maternal deaths occurring during delivery can be prevented by improving the standard and quality of care provided during delivery in the labour rooms of government facilities, thereby reducing the burden of high maternal mortality ratio and neonatal mortality. Implementation of LaQshay in all the district hospitals will lead to overall improvement in the service delivery and quality of care provided in the labour rooms.

10. RECOMMENDATIONS

- Dedicated Gynecologists, staff nurses, emergency medical officers and housekeeping staff should be deployed at all the district Hospitals. Additionally, a dedicated Assistant Hospital Administrator should also be designated at all the district hospitals for effective implementation of LaQshay Initiative and other programs.
- Regular trainings of the staff should be conducted at the district level to improve the quality of services provided in the labor rooms.
- Procurement of new labour tables and other necessary equipment required for the labour rooms.
- Displaying the IEC materials and signages at right places in the labour rooms.
- Regular reporting and monitoring are necessary for the continuous improvement in the quality of care at all delivery points.
- All essential drugs and consumables should be made available in the labour rooms.
- Standard Operating Procedures for quality assurance should be clearly laid down and disseminated to all the staff of the labour rooms be the health facilities.
- The facilities should continuously strive towards improving the service delivery by conducting regular meetings with the district coaching teams.

11. REFERENCES

1. LaQshya-Guidelines.pdf.
2. A201875161811_1.pdf.pdf.
3. IndianJPublicHealth604323-1145347_001905.pdf [Internet]. [cited 2019 Apr 22]. Available from: http://www.ijph.in/temp/IndianJPublicHealth604323-1145347_001905.pdf
4. MMR Bulletin-2014-16.pdf.
5. PB_FactSheet nfhs4.pdf.
6. Srofenyoh EK, Kassebaum NJ, Goodman DM, Olufolabi AJ, Owen MD. Measuring the impact of a quality improvement collaboration to decrease maternal mortality in a Ghanaian regional hospital. Int J Gynecol Obstet. 2016;134(2):181–5.
7. Solnes Miltenburg A, Kiritta RF, Meguid T, Sundby J. Quality of care during childbirth in Tanzania: identification of areas that need improvement. Reprod Health. 2018 Jan 27;15(1):14.
8. Sheferaw ED, Bazant E, Gibson H, Fenta HB, Ayalew F, Belay TB, et al. Respectful maternity care in Ethiopian public health facilities. Reprod Health. 2017 May 16;14(1):60.
9. (PDF) Assessment of Labour Rooms in Public Health Facilities of Bihar, India. [Internet]. ResearchGate. [cited 2019 May 7]. Available from: https://www.researchgate.net/publication/282337336_Assessment_of_Labour_Rooms_in_Public_Health_Facilities_of_Bihar_India
10. Saxena M, Srivastava A, Dwivedi P, Bhattacharyya S. Is quality of care during childbirth consistent from admission to discharge? A qualitative study of delivery care in Uttar Pradesh, India. PLOS ONE. 2018 Sep 27;13(9):e0204607.
11. Adherence to evidence based care practices for childbirth before and after a quality improvement intervention in health facilities of Rajasthan, India | BMC Pregnancy and Childbirth | Full Text [Internet]. [cited 2019 May 12]. Available from: https://bmcpregnancychildbirth.biomedcentral.com/articles/10.1186/1471-2393-14-270
12. "Neither we are satisfied nor they"-users and provider's perspective: a qualitative study of maternity care in secondary level public health facilities, Uttar Pradesh, India | BMC Health Services Research | Full Text [Internet]. [cited 2019 May 12]. Available from: https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-015-1077-8